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| APPLICATI                              | ON NO.    | FILING DATE    | FIRST NAMED INVENTOR   | ATTORNEY DOCKET NO.       | CONFIRMATION NO. |
|--|-----------|----------------|------------------------|---------------------------|------------------|
| 10/809,                                | ,120      | 03/24/2004     | Harry Frederick Bowman | TTI-03                    | 7721             |
|  | L. Neal   | 7590 01/18/200 | 7                      | EXAMINER NASSER, ROBERT L |                  |
|  | Braebourr |                |                        |                           |                  |
| Rogers, AR 72758                       |           | 736            |                        | ART UNIT                  | PAPER NUMBER     |
|  |           |                |                        | 3735                      |                  |
|  |           |                | ·                      |                           |                  |
| SHORTENED STATUTORY PERIOD OF RESPONSE |           |                | MAIL DATE              | DELIVERY MODE             |                  |
|  | 3 MO      | NTHS           | 01/18/2007             | PAPER                     |                  |

Please find below and/or attached an Office communication concerning this application or proceeding.

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

|  | Application No.  | Applicant(s)           |  |  |  |  |  |
|--|--|------------------------|--|--|--|--|--|
|  | 10/809,120   | HARRY FREDERICK BOWMAN |  |  |  |  |  |
| Office Action Summary  | Examiner   | Art Unit               |  |  |  |  |  |
|  | Robert L. Nasser   | 3735                   |  |  |  |  |  |
| The MAILING DATE of this communication appears on the cover sheet with the correspondence address Period for Reply   |  |                        |  |  |  |  |  |
| A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.  - Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.  - If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.  - Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b). |  |                        |  |  |  |  |  |
| Status   |  | •                      |  |  |  |  |  |
| 1) Responsive to communication(s) filed on   |  | •                      |  |  |  |  |  |
|  | -<br>action is non-final.  |                        |  |  |  |  |  |
| 3) Since this application is in condition for allowan  | 3) Since this application is in condition for allowance except for formal matters, prosecution as to the r |                        |  |  |  |  |  |
| closed in accordance with the practice under E   | closed in accordance with the practice under Ex parte Quayle, 1935 C.D. 11, 453 O.G. 213.                  |                        |  |  |  |  |  |
| Disposition of Claims  |  |                        |  |  |  |  |  |
| 4)⊠ Claim(s) <u>1-9</u> is/are pending in the application.   | 4) Claim(s) 1-9 is/are pending in the application  |                        |  |  |  |  |  |
| 4a) Of the above claim(s) is/are withdrawn from consideration.   |  |                        |  |  |  |  |  |
| 5) Claim(s) is/are allowed.  |  |                        |  |  |  |  |  |
| 6)⊠ Claim(s) <u>1-9</u> is/are rejected.   | ·  |                        |  |  |  |  |  |
| 7) Claim(s) is/are objected to.  | 7) Claim(s) is/are objected to.  |                        |  |  |  |  |  |
| 8) Claim(s) are subject to restriction and/or  | election requirement.  |                        |  |  |  |  |  |
| Application Papers   |  |                        |  |  |  |  |  |
| 9) The specification is objected to by the Examiner  | <b>1</b> .   |                        |  |  |  |  |  |
| 10) The drawing(s) filed on is/are: a) accepted or b) objected to by the Examiner.   |  |                        |  |  |  |  |  |
| Applicant may not request that any objection to the o  | drawing(s) be held in abeyance See   | 37 CFR 1.85(a).        |  |  |  |  |  |
| Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).   |  |                        |  |  |  |  |  |
| 11) The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.   |  |                        |  |  |  |  |  |
| Priority under 35 U.S.C. § 119   |  |                        |  |  |  |  |  |
| 12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f). a) All b) Some * c) None of:   |  |                        |  |  |  |  |  |
| <ol> <li>Certified copies of the priority documents</li> </ol>   | s have been received.  |                        |  |  |  |  |  |
| <ol><li>Certified copies of the priority documents</li></ol>   | 2. Certified copies of the priority documents have been received in Application No                         |                        |  |  |  |  |  |
| 3. Copies of the certified copies of the priority documents have been received in this National Stage  |  |                        |  |  |  |  |  |
| application from the International Bureau (PCT Rule 17.2(a)).  |  |                        |  |  |  |  |  |
| * See the attached detailed Office action for a list of the certified copies not received.   |  |                        |  |  |  |  |  |
|  |  |                        |  |  |  |  |  |
| •  |  |                        |  |  |  |  |  |
| Attachment(s)  |  |                        |  |  |  |  |  |
| 1) Notice of References Cited (PTO-892) 2) Notice of Draftsperson's Patent Drawing Review (PTO-948) 4) Interview Summary (PTO-413) Paper No(s)/Mail Date   |  |                        |  |  |  |  |  |
| <ul> <li>2) Notice of Draftsperson's Patent Drawing Review (PTO-948)</li> <li>3) Information Disclosure Statement(s) (PTO/SB/08)</li> </ul>  | 5) Notice of Informal Page   |                        |  |  |  |  |  |
| Paper No(s)/Mail Date 6)  Other:   |  |                        |  |  |  |  |  |

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The examiner notes that applicant claims priority to 10/364773, filed 2/11/2003. 10/364773 discloses that one sensor is placed in the vena cava and one in the pulmonary artery. It is the examiner's position that this is one sensor in the venous side and one sensor in the arterial side of the body. As such, it is the examiner's position that claims 1,2, and 4-9 find support in the prior application and this have a filing date of 2/11/2003. However, claim 3 is not supported in the prior application, and thus has a date of 3/24/2004.

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless -

- (b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.
- (e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

Claims 1,2, and 4-9 are rejected under 35 U.S.C. 102(b) as being clearly anticipated by Bowman 5797398. Bowman has the same disclosure as the priority document to the current invention, with one sensor in the vena cava and one in the pulmonary artery. Since applicant did not claim priority back to this patent, it is available as a reference. See 37 CFR 1.78.

Claims 1-3 and 6-9 are rejected under 35 U.S.C. 102(e) as being anticipated Callister et al 7087026. Callister et al shows a system for measuring blood flow

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including a heat exchanger 20 in the subclavian vein (see column 5, line 59) a first sensor 22 upstream therefrom and a second sensor 18 in the pulmonary artery, where blood flow is determined from the temperature difference between the two sensors. With respect to claims 2 and 3, the heat exchanger and first sensor may be on one catheter and the second sensor on another. Claims 6-8 are rejected for the reasons given above. Claim 9 is rejected in that Callister teaches the method.

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

Claim 3 is rejected under 35 U.S.C. 103(a) as being unpatentable over Bowman in view of Callister et al 7087026. Callister teaches that a system like that of Bennett can be provided with 2 catheters, one for each sensor. Hence, it would have been obvious to modify Bowman to use two catheters, as it is merely the substitution of one known configuration for another.

Claims 4 and 5 are rejected under 35 U.S.C. 103(a) as being unpatentable over Callister et al 7087026 in view of Bowman. Bowman teaches the recited processing technique. Hence, it would have been obvious to modify Callister to measure flow like Bowman does, as it is merely the substitution of one known processing technique for another.

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Any inquiry concerning this communication or earlier communications from the examiner should be directed to Robert L. Nasser whose telephone number is 571 272-4731. The examiner can normally be reached on m-f 9-5.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Charles Marmor II can be reached on 571 272-4730. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

RLN January 7, 2007 Robert L. Nasser Primary Examiner Art Unit 3735

> ROBERT L NASSER PRIMARY EXAMPLE